

Fig. 1

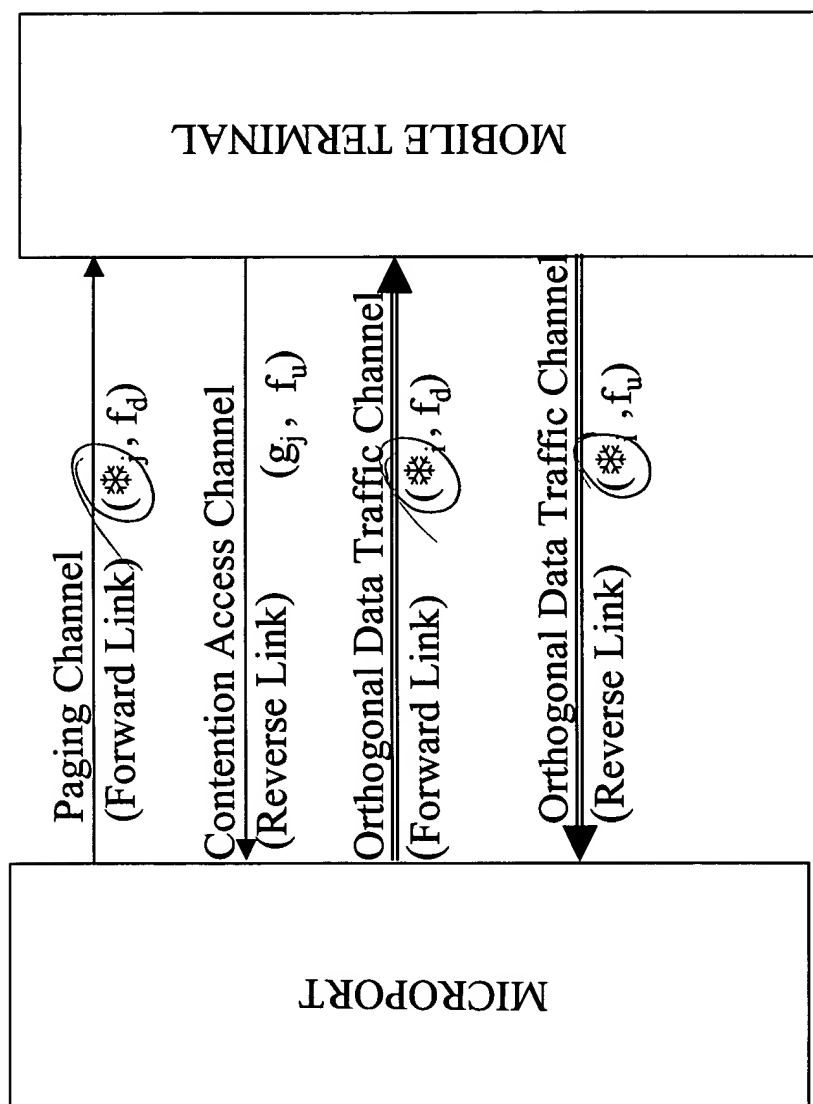


Fig. 2

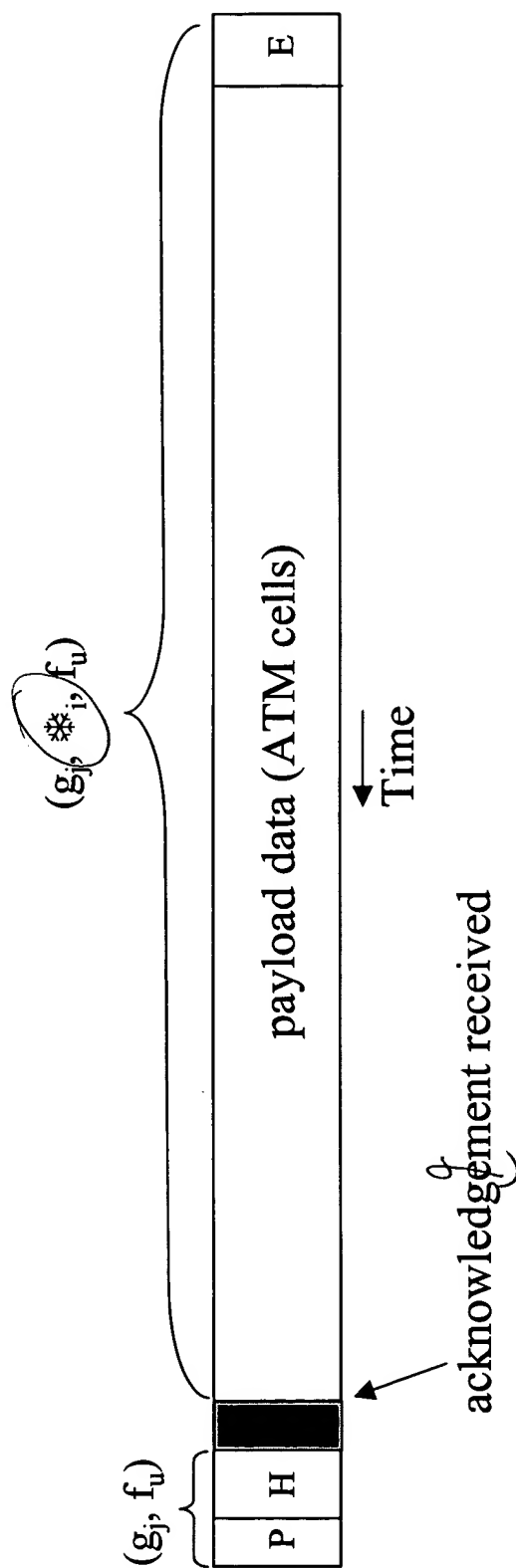


Fig. 3a

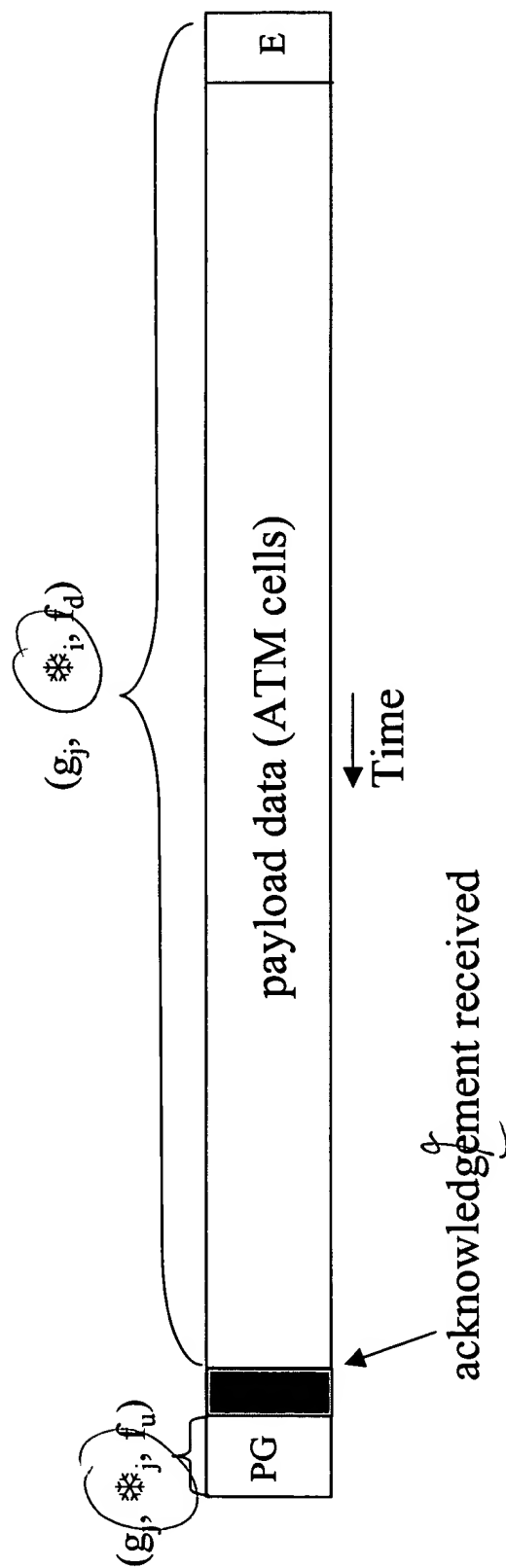


Fig. 3b

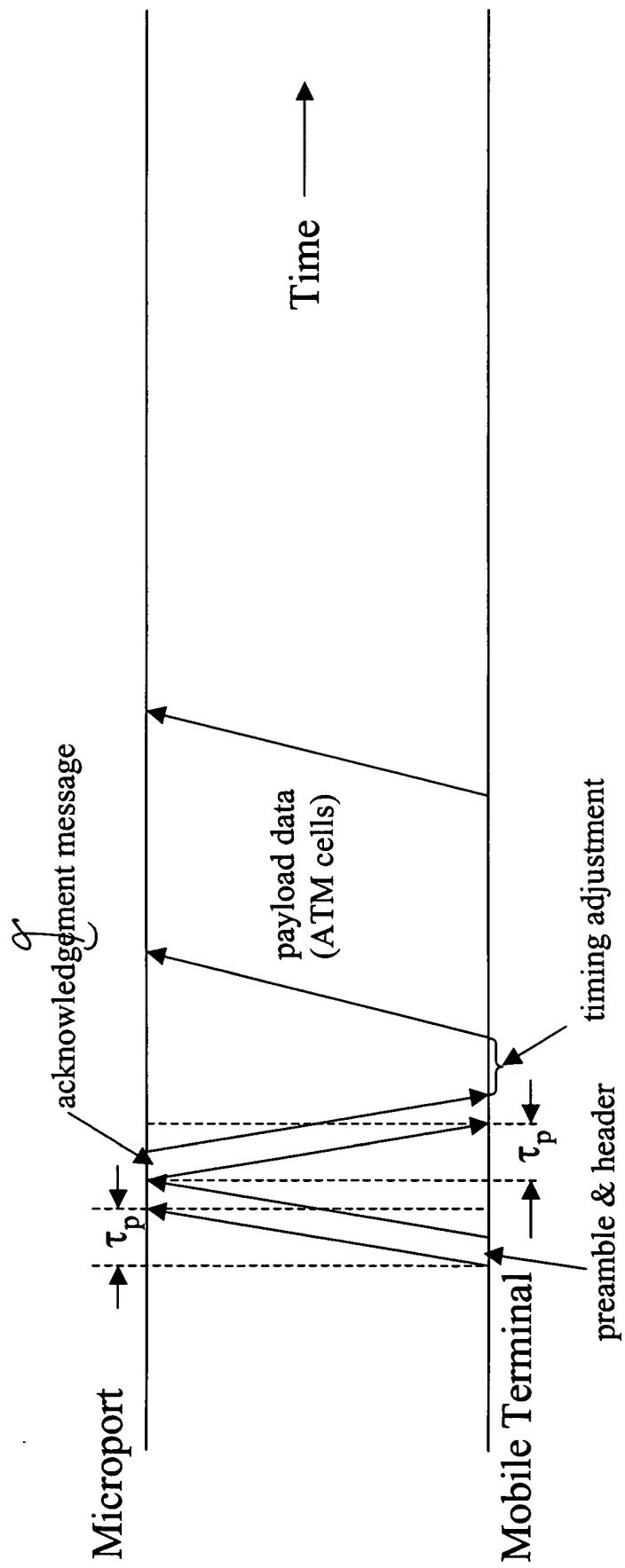


Fig. 4a

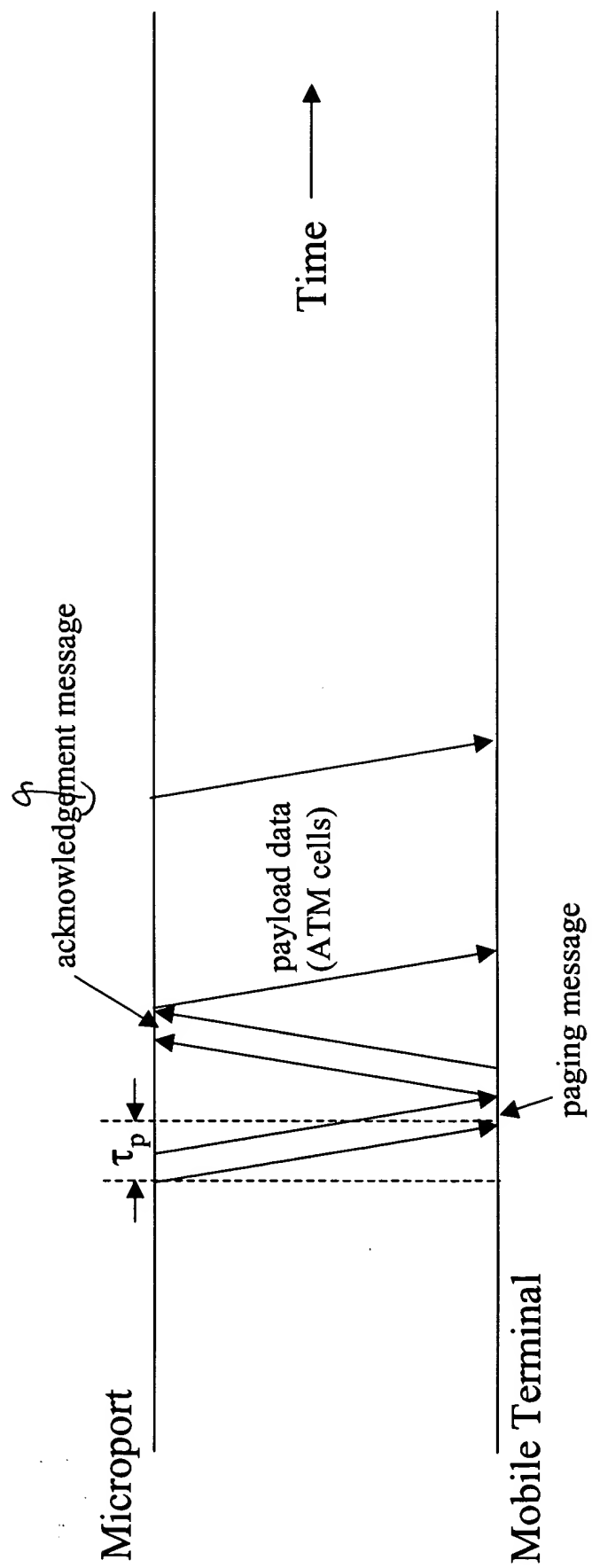


Fig. 4b

START

The mobile subscriber terminal transmits a preamble signal spread by a PN-code g_j (identifying the microport) and "marks" the point of the time origin. Following the preamble, a few bits of data are transmitted that identify the transmitting mobile user. This constitutes the packet header and is also spread by the PN-code g_j .

After an acknowledgement is received within time-out period, the mobile subscriber terminal spreads the information and data (i.e., ATM cell) by both the assigned orthogonal code (contained in the acknowledgement) and the PN-code. The mobile subscriber terminal also adjusts its transmission time (with respect to the marked point maintained by the microport) by the amount indicated in the acknowledgement so that all transmissions are synchronized. If no acknowledgement is received within time-out, the mobile retransmits the preamble and header.

After the end of the information and data, the mobile subscriber terminal sends an end of packet flag, which is also spread by the orthogonal and PN codes. The assigned orthogonal code is released, making that unique code available for reuse.

END

Fig. 5a

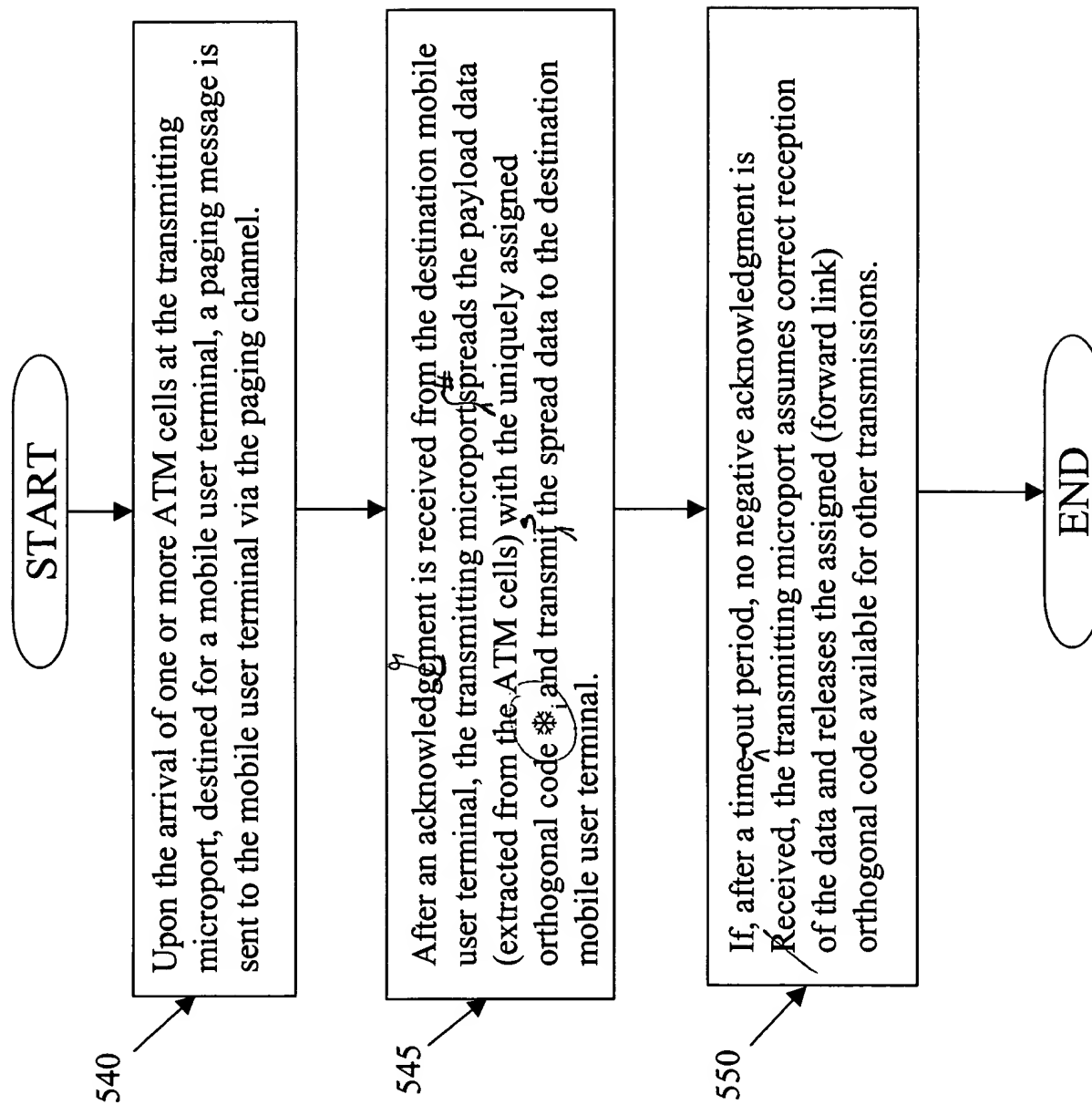


Fig. 5c

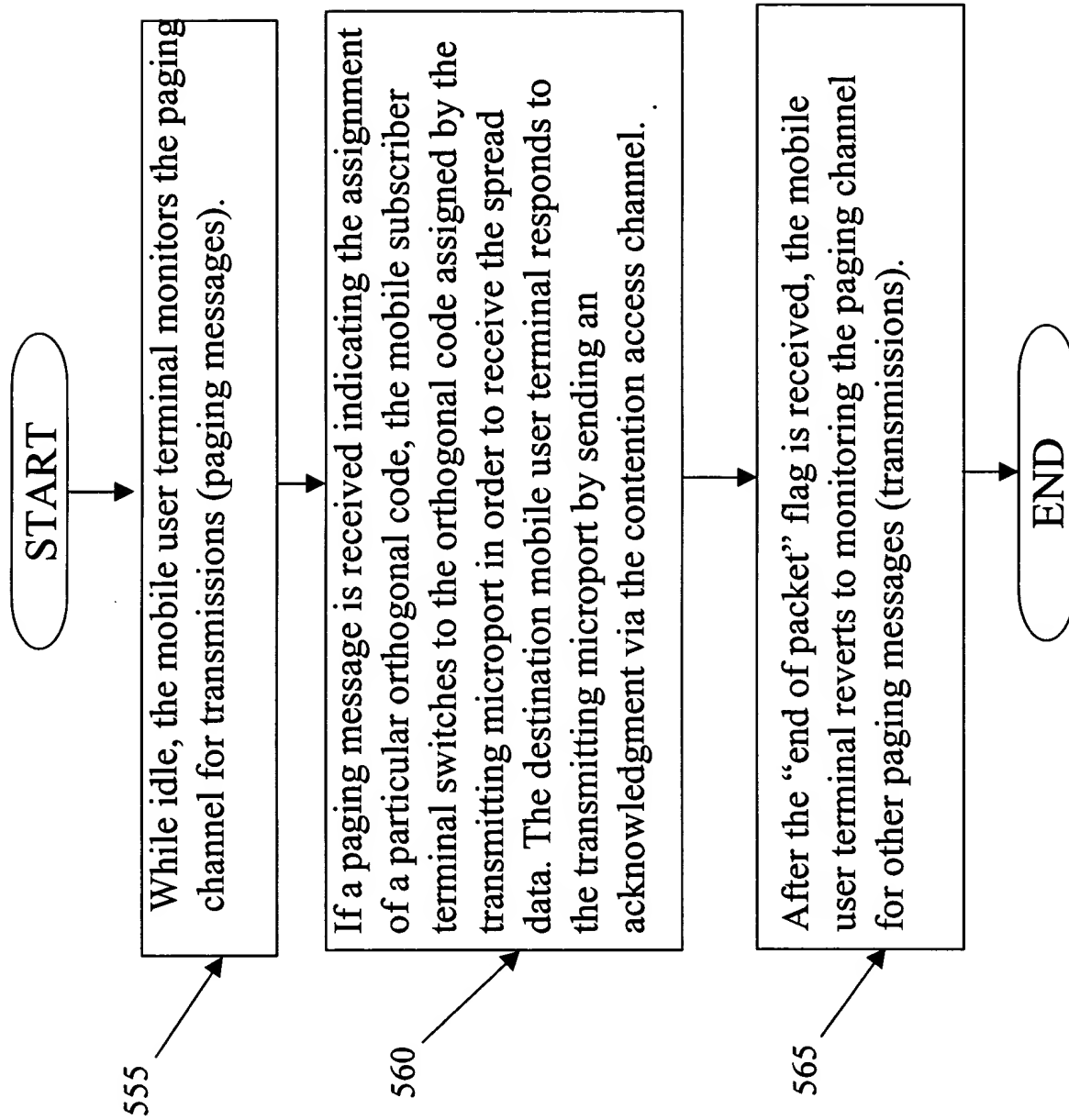


Fig. 5d

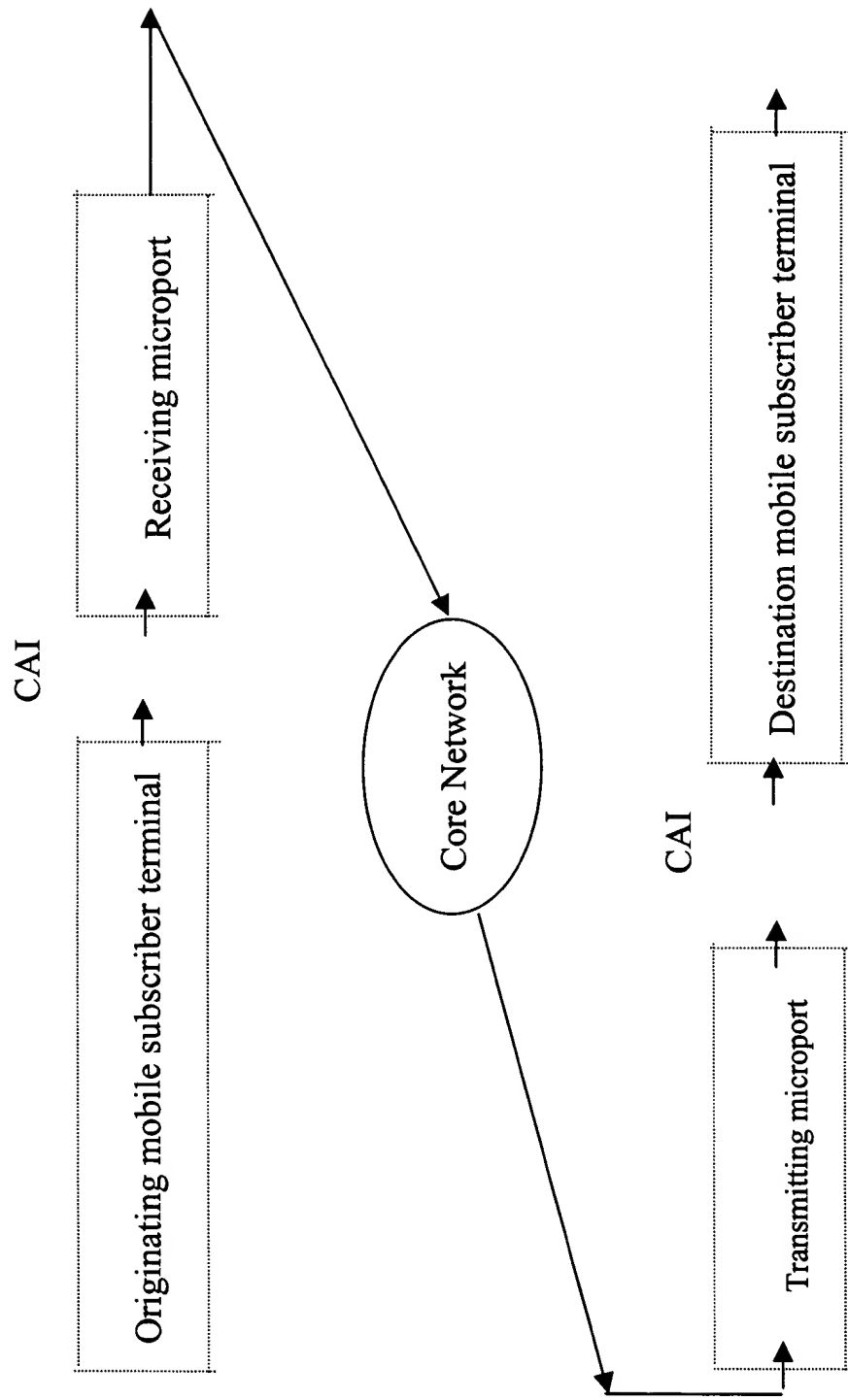


Fig. 6

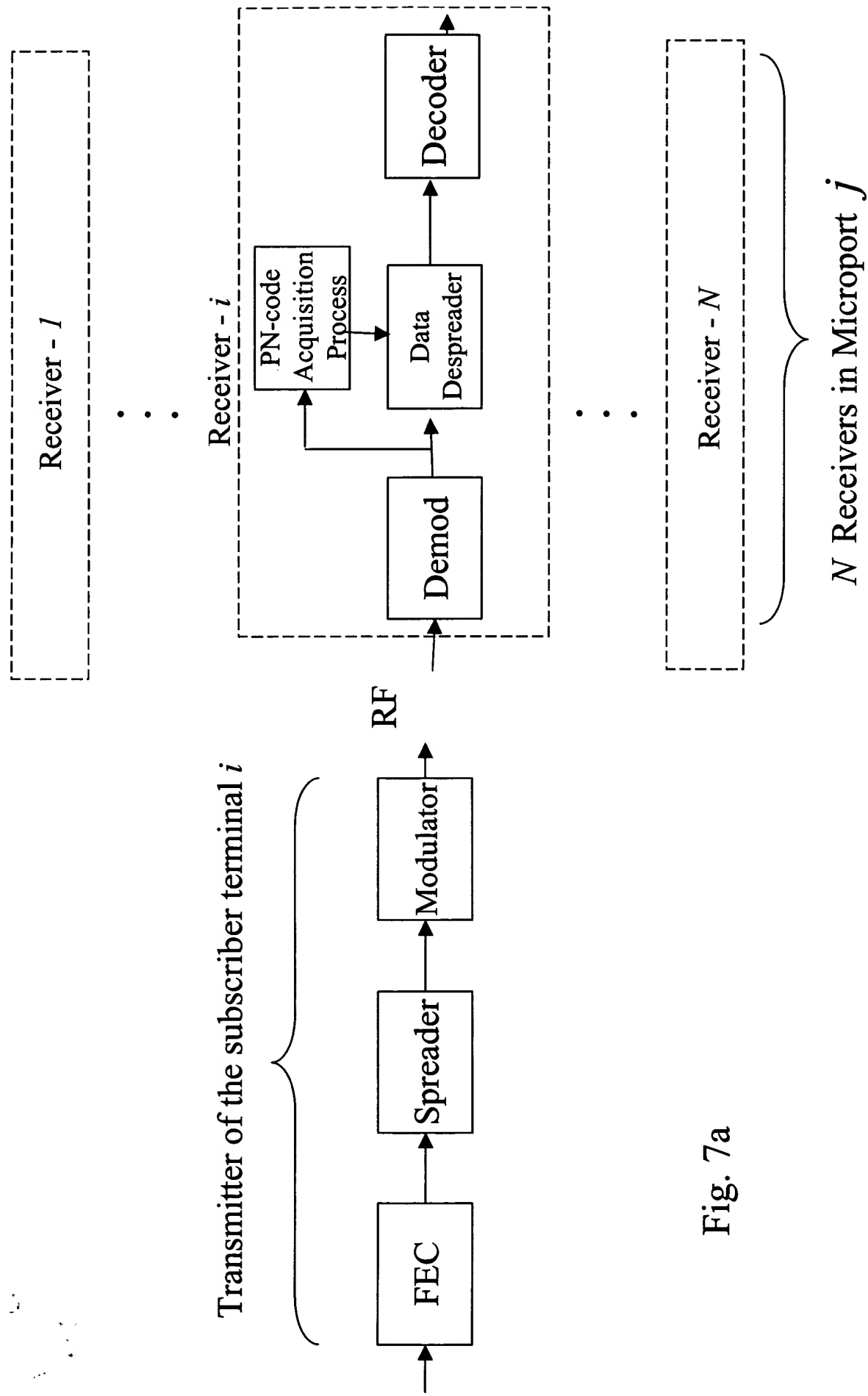


Fig. 7a

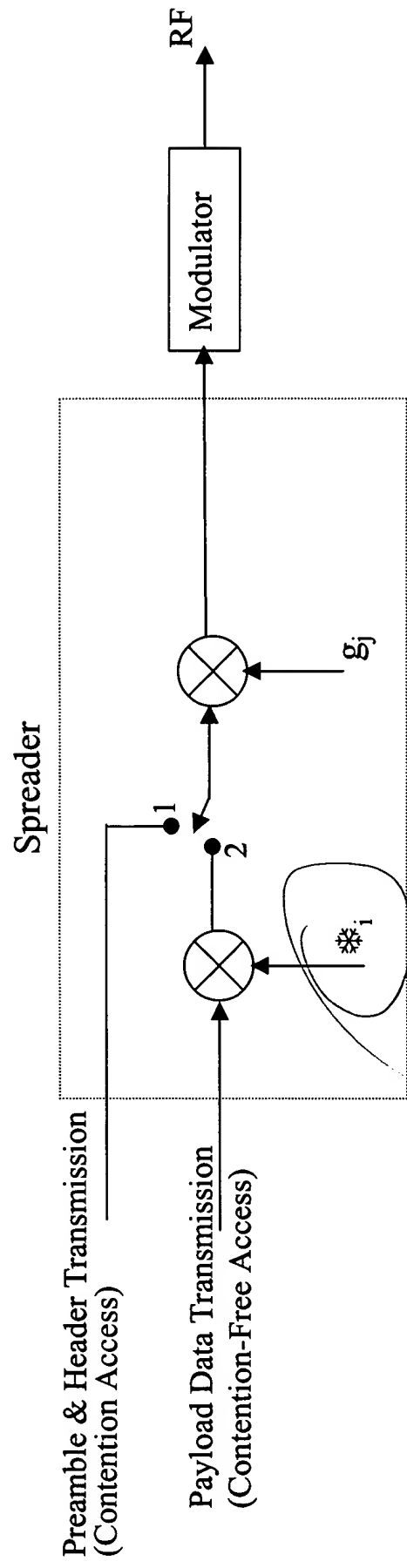


Fig. 7b

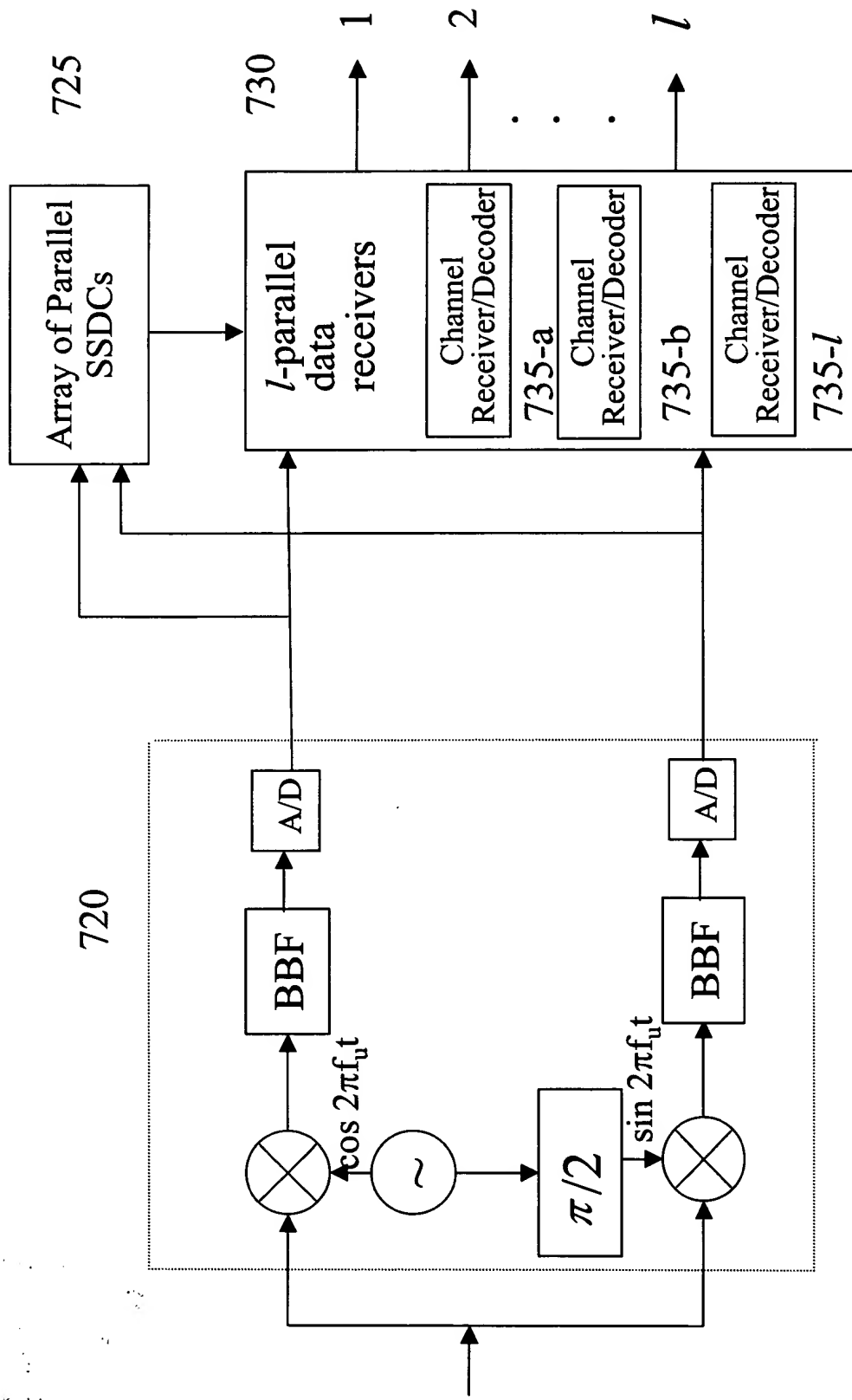


Fig. 7c

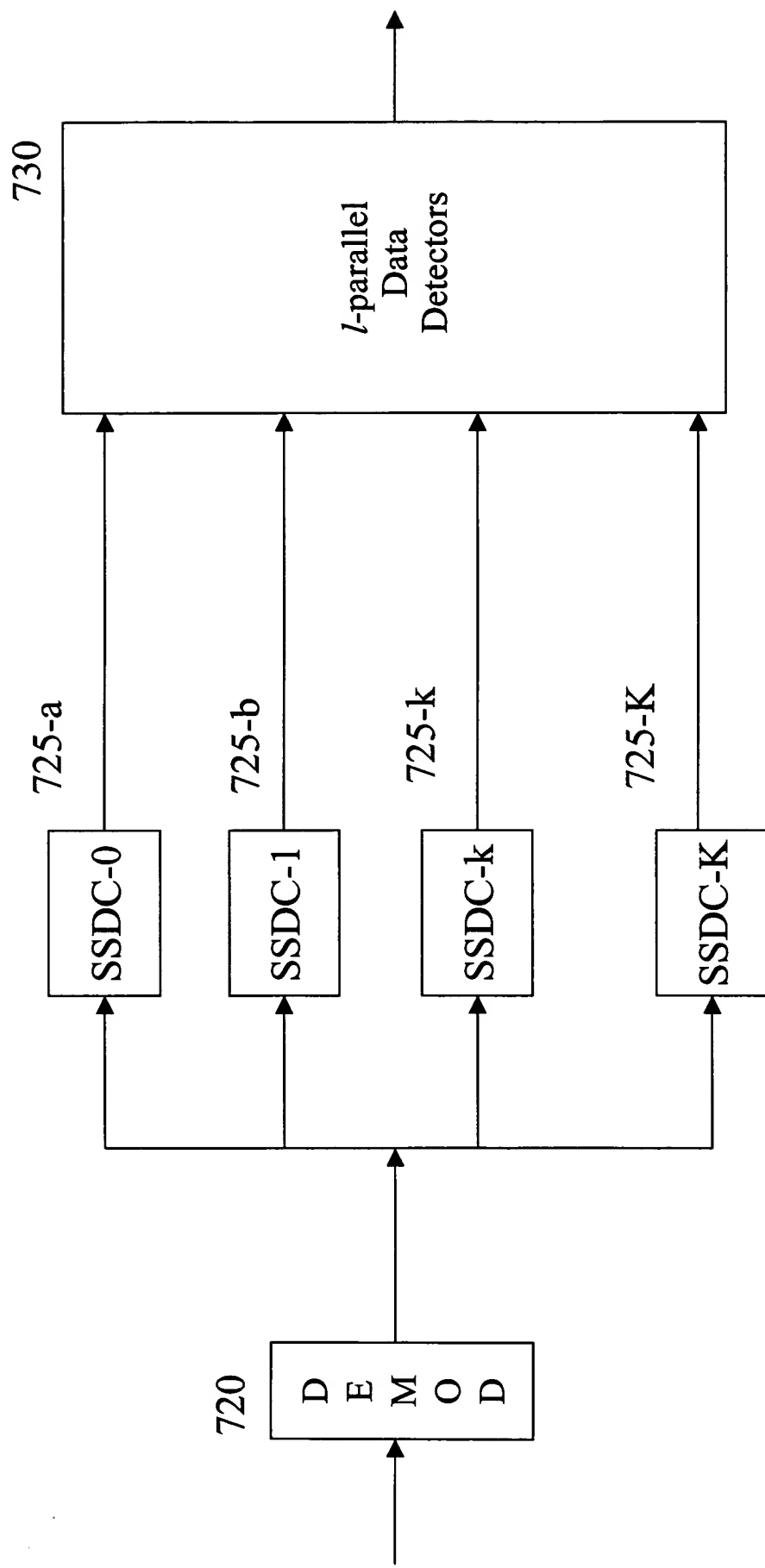


Fig. 7d

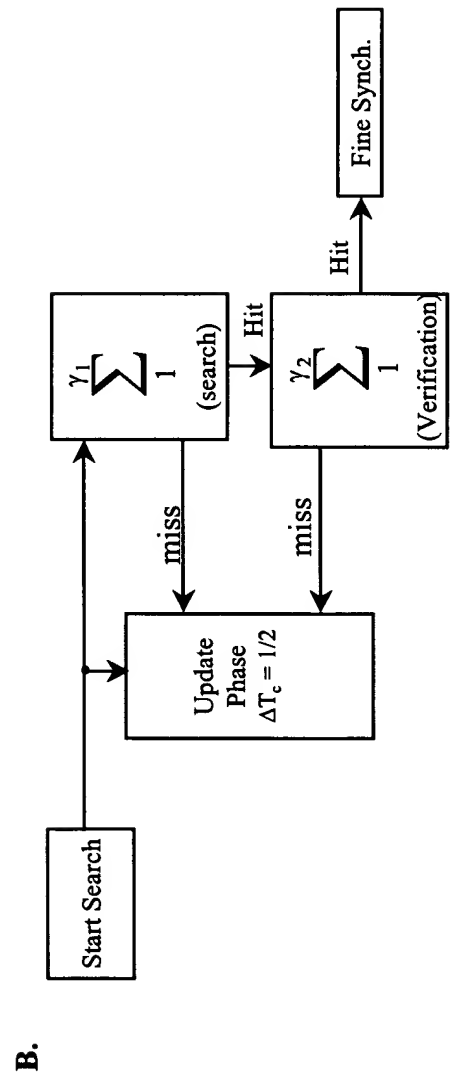
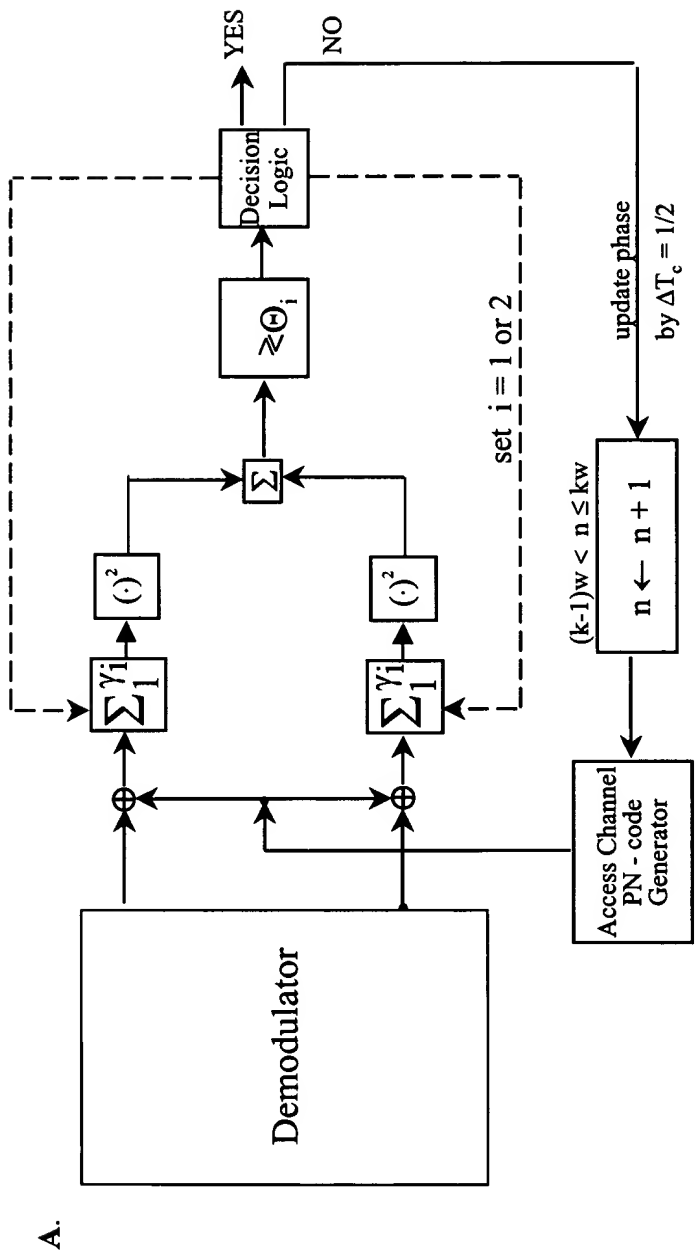


Figure 7e

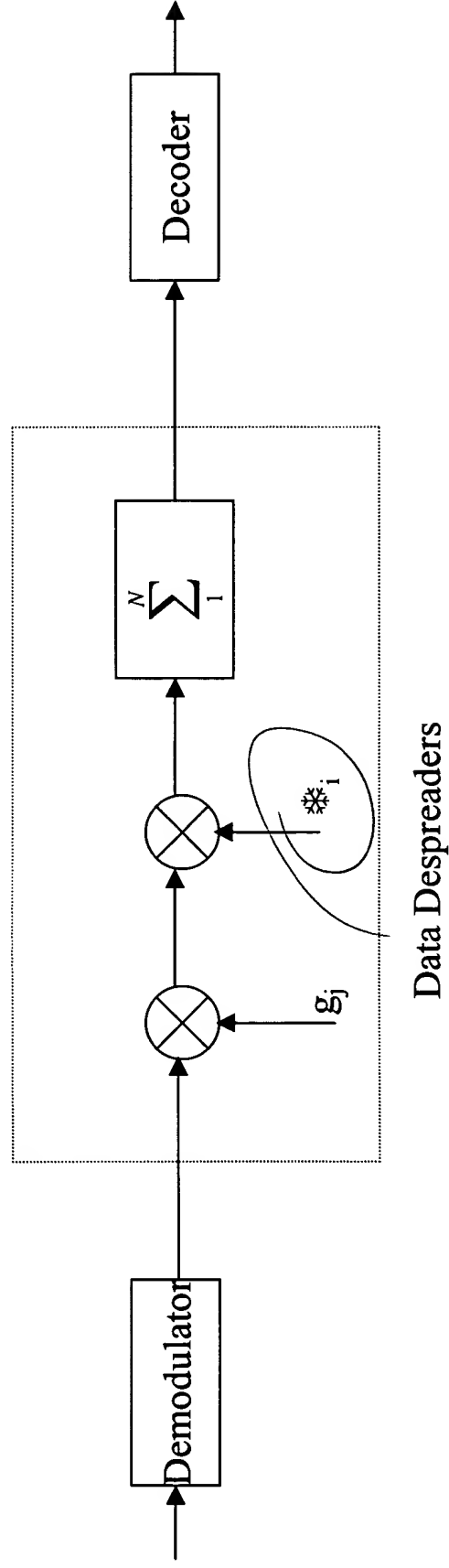


Fig. 7f

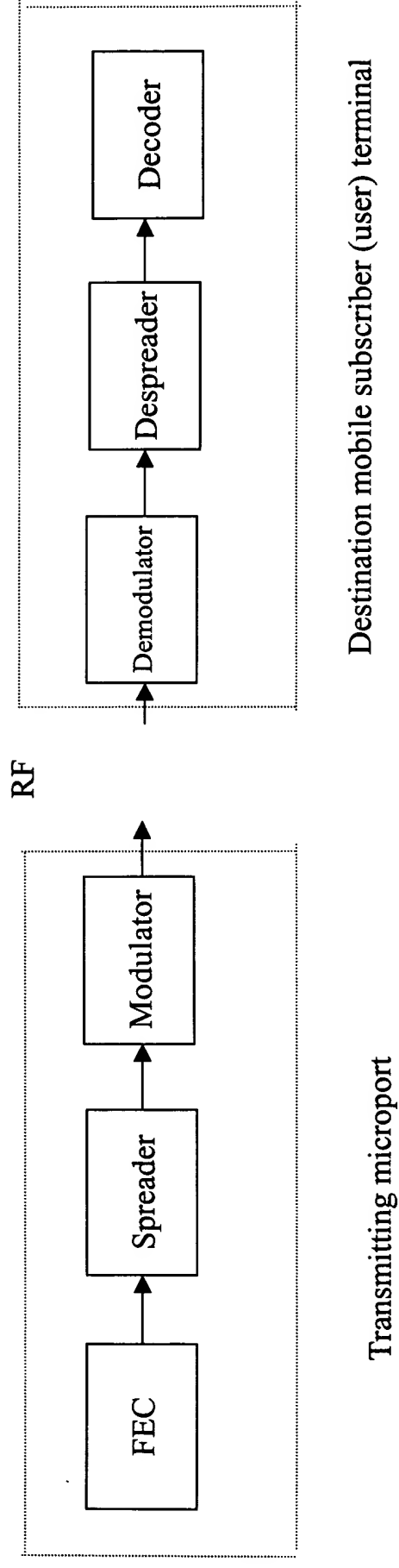


Fig. 8a

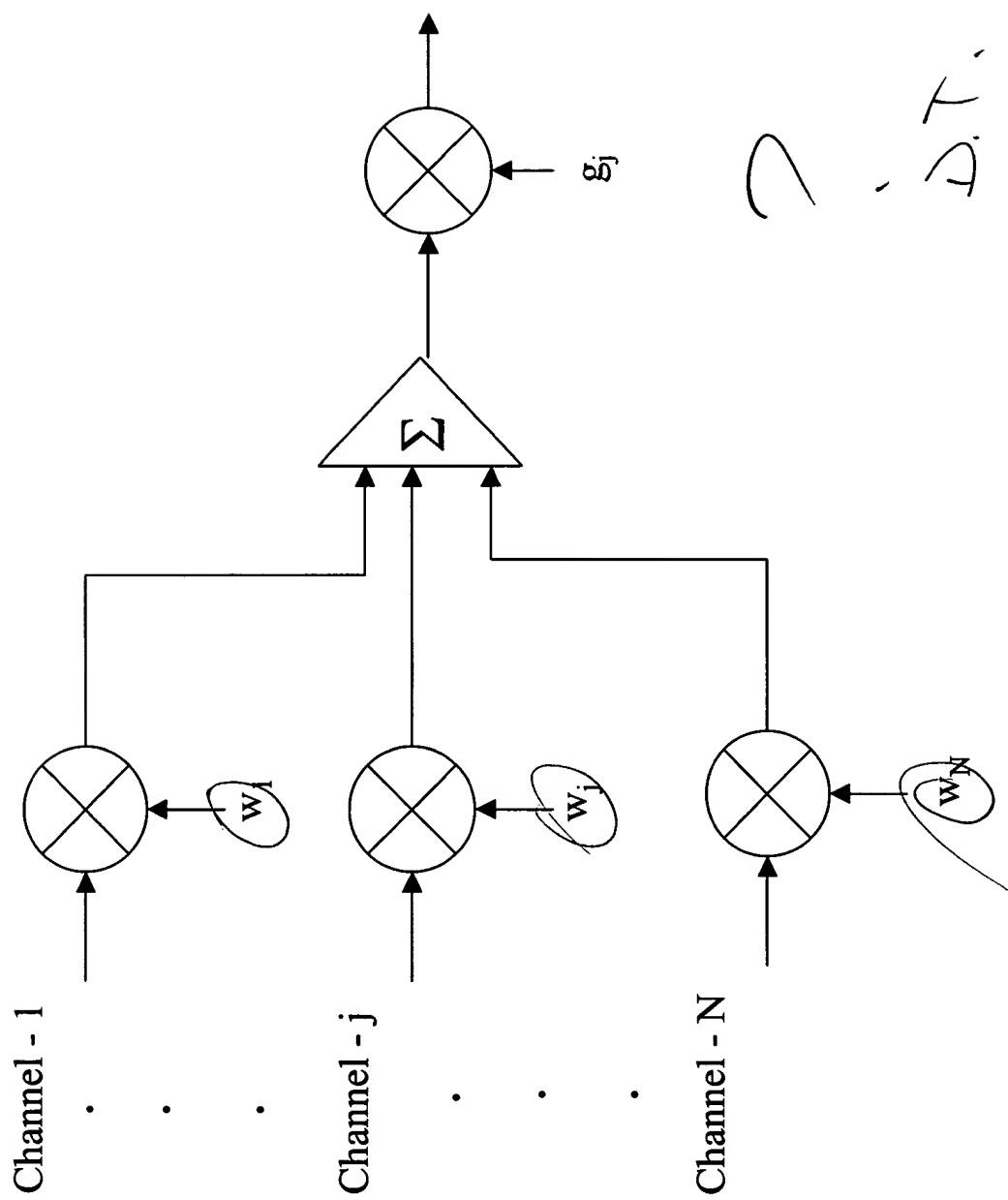


Fig. 8b

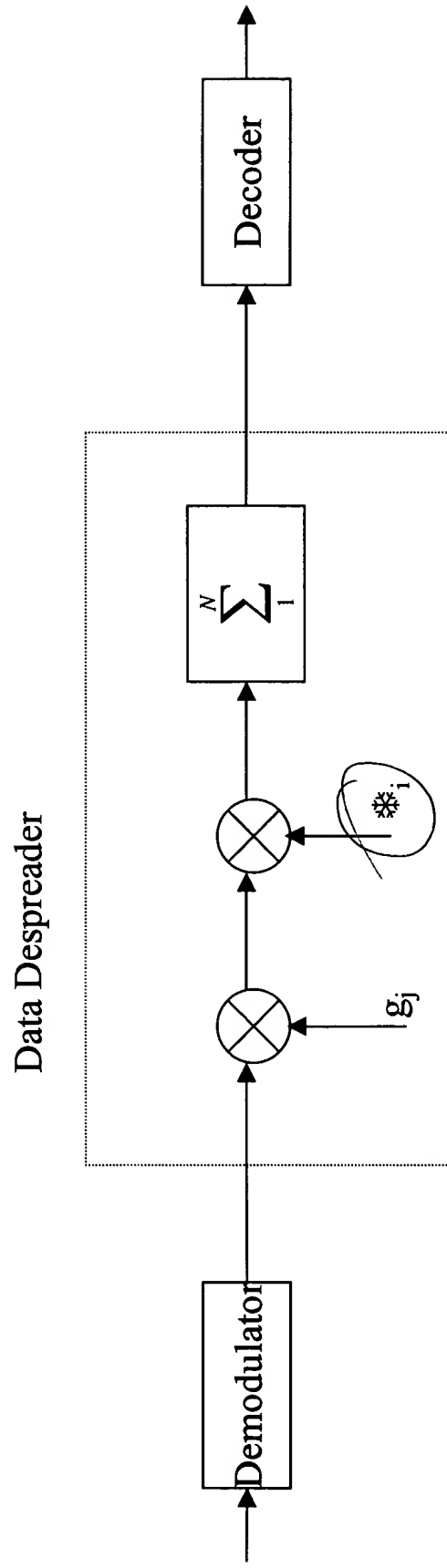


Fig. 8c